Kotlin Programming: Basic Concepts

Alexander López-Parrado, PhD.
Introduction to Mobile Applications Development
GDSPROC
Uniquindío

In this lab you will write a Kotlin program to request a temperature reading from any place worldwide by using the Open Weather Map service and geolocation coordinates. To accomplish this task, you need to complete following directions:

1. Create a user account in Open Weather Map and get an API (*Application Programming Interface*) key.

2. Test the API along with generated API key by requesting information about Armenia weather. This can be accomplished by means of your WEB browser and following URL (*Universal Resource Locator*): `http://api.openweathermap.org/data/2.5/weather?lat=4.5350&lon=75.6757&APPID={APIKEY}`, where `{APIKEY}` denotes API key you generated in previous step. Analyze your browser's output.

3. Fetch file wGet.kt, which contains a function named wGet that connects to any URL and returns the server response.
4. By using function wGet, write the `getTemperature` function that complies following prototype: `fun getTemperature(lat: Double, long: Double, key: String):Double`. This function receives arguments latitude and longitude, which conform location of place we are requesting temperature from. In addition, the function returns location temperature in Celsius degrees. Hint: use only methods from `String` to parse the server response.
5. Finally, write a Kotlin program requesting temperature measurements from any place (e.g. Tangamandapio, Mexico) with a period of 10s. Your program should print current temperature and average temperature. Hint: Use `Thread.sleep` method.